"Broadband" is a general term that refers to any relatively large-volume data transmission service or technology. It is not specific to Internet connections, nor even computer networking in general. You could very well establish a broadband telegraph line through multiplexing.... Obviously, however, in this context it would be synonymous to a relatively high bandwidth Internet connection. An Internet connection would be defined as a method and technology for digital information exchange between (both to and from) the endpoint (the handoff point) and the Internet backbone, which is compatible with Internet protocol standards.

The following are technical qualities relevant to the issue of establishing standards for Internet connections:

* Throughput/Bandwidth...the quantity of data that can be carried per length of time.
* Latency...the length of time required to transmit or receive a burst or single packet of data. A lower value is preferable, thus measurement in terms of quality is inversed.
* Connection Availability...the ability to establish a physical connection.
* Connection Reliability...the ongoing availability of data transmission over an already established physical connection.
* Transmission Reliability...the ability of the network to carry data with a technically minimal amount of loss or corruption. This is mitigated by sacrificing throughput/bandwidth capacity to implement various types of redundancy and checksumming, as necessary, on the link layer. Any such compromise in overhead will count against (not for) the throughput/bandwidth capacity.

There are likely several other technical issues, for example important in real-time applications like voice communication. As far as I know, these are largely inherent with the current design of the Internet in general, and would have little practical relevance anyway unless at relatively extreme levels.

Advertising Broadband Capability

The above qualities should be stated at least as minimums. This is the guaranteed base quality of service, barring unavoidable and unknown disruptions to the network or it's sources. This could be

enforced, for example, by various layers of contracts (between service providers and THEIR service providers), allowing a percentage or other measure of downtime to repair these disruptions, or appropriate compensation otherwise. Unless otherwise agreed upon, this downtime would include possible disruptions for such expected measures as improving equipment, with forward notification provided. Compensation can include, for example, an increased enforceable quality of service minimum, average, and/or maximum, monetary compensation, etc. This minimum exists to prevent over-subscription, the selling of more bandwidth than the network can actually provide. This should be specified for each significant quality, else should be specified that the service provider does not guarantee service.

Generally, service providers would want to provide an average/mean advertised speed, which is often a conditional measure, for example allowing variability in performance provided by the network depending on time of day. If an average/mean is advertised, it should be clearly labeled as such, so to not confuse it with a guaranteed quality. This might be enforceable (as a minimum average/mean) as advertised, or unenforceable (speculative), but for the latter must also be clearly specified as such.

If there any maximums/limits imposed, they should be clearly stated. An advertised average (even speculative) is preferable to placing a maximum, as a maximum effectively reduces the attainable quality of service.

The "Basic" Broadband
I do not feel fully qualified at this point to specify a "basic" broadband connection quality balance by today's or tomorrows needs... I'm personally used to the pain of dial-up and similar 'slow' connections. However, emphasis should be placed on establishing this "basic" connection to fit those needs, ensuring the appropriate effort is applied to improve the various types of networks as needed to grow along with the needs, as well as is possible. Emphasis should be placed in such a way as to ensure that the network is both reliable, available and accessible to as many people as possible, providing at least the quality advertised without artificial discrimination of user or use. There will be variations present in

different physical networking technologies, each requiring their own considerations when identifying their qualities as 'good' or 'basic'.

Qualifications aside, I would generally opine that "basic" broadband service should be capable of carrying low-bitrate, 'realtime' audio/video plus captioning in both directions, while simultaneously accessing more static data (like web pages) at a reasonable rate (no less than 65536 (64K) Bytes/s), without significantly degrading network-essential (both-way) functions of smaller data packets such as those of DNS and HTTP requests, all with no more than one second of latency for wide-area wireless connections or one forth of a second for wired connections. Network availability should always be high (that's the point of all this, right?), and reliability (both kinds, preferably) should also.

Other practical issues are present when regulating implementations of information transmission:

* Security...ensuring data is not made available to an unintended recipient. This is the responsibility of all of the server, the network servicer/provider, and the client, as security can be compromised at any point. Data security has thus far proven to be not impossible to break, but at least a reasonable effort should be taken to avoid security breaches, possibly enforcible by contract or even law if this effort is not taken or the responsibility abused.
* Nondiscrimination/Neutrality...ensuring anyone can access and use the network for any legal purpose, without any artificial limits or priority.
* Legality...ensuring data is not illegally created, redistributed, or possessed. It is often the case that records of the illegal creation, transmission or possession of data may not be available due to encryption, a lack of logging, or damage caused to tamper with known electronic or other evidence. However, this is not sufficient reason for active monitoring ("tapping") of networks by government or contractors, which just as well could lead to a compromise of the other two practical points, if not risking to some additional degree the technical qualities of the network. Also, this type of practice tends to itself be illegal.

Hopefully this comment is informative and helpful in the definition of broadband by the FCC, and possibly any other relevant plans. After all, it might well lead me to something a bit better than dial-up, in a locally competitive marketplace so I can afford it....